UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,516	01/24/2002	Joel L. Wolf	YOR9-2001-0666 US1 (8728-	4326

7590 03/22/2005	**EXAMINER**
Frank Chau	MEUCCI, MICHAEL D

F. CHAU & ASSOCIATES, LLP
Suite 501
1900 Hempstead Turnpike
East Meadow, NY 11554

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/057,516	WOLF ET AL.
	Examiner	Art Unit	
	Michael D Meucci	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _24 January 2002_.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-16_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1,2,5-7,9,10 and 13-15_ is/are rejected.

7) ☒ Claim(s) _3,4,8,11,12 and 16_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _24 January 2002_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _8/28/03_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1.   The drawings are objected to because of the following reasons:

    a.   The header text occurring on every drawing sheet must be removed.

    b.   Figure 3 must be relabeled as "Figure 3a" to remain constant with the numbering of Figures 3b through 3d.

    c.   Arrows on all relevant drawings should be made more clear/distinct.

    d.   It is recommended by the examiner that typed lettering be used in the drawings in place of handwritten text.

    Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next

Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2.   Claims 3-4, 8, 11-12, and 16 are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

3.   Claims 3 and 11 objected to because of the following informalities: "effected" on

line 1 of each claim should be replaced with --affected--.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

5.   Claims 3, 8, 11, and 16 rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

        a.   The term "hypothetical" in claims 3, 8, 11, and 16 has not been defined by

the specification. A "hypothetical" situation requires a conditional limitation as to which

has not been disclosed. Clarification of the matter is required.

        b.   Claims 3, 8, 11, and 16 recite the limitation "the hypothetical number of

sharable requests" and "the hypothetical number of unsharable requests". There is

insufficient antecedent basis for these limitations in the claims.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.   Claims 1-2, 7, 9-10, and 15 rejected under 35 U.S.C. 102(e) as being anticipated

by Carlson (U.S. 6,697,849 B1).

       a.   As per claims 1 and 9, Carlson teaches: categorizing customer requests

received from said websites into a plurality of categories, said categories comprising a

shareable customer requests and unshareable customer requests (line 65 of column 14

through line 10 of column 15, lines 29-36 of column 15, and Fig. 14) [wherein "sticky"

requests are regarded as the unshareable customer requests]; routing said shareable

customer requests such that any of said servers may process shareable customer

requests received from different said websites (lines 47-57 of column 12, line 66 of

column 13 through line 6 of column 14, lines 36-48 of column 14, and Fig. 7); and

routing said unshareable customer requests from specific said websites only to specific

servers to which said specific websites have been assigned (lines 11-28 of column 15).

       b.   As per claims 2 and 10, Carlson teaches: a Goal procedure comprising

determining, for each said customer request, an optimal server from among said

servers to which each said customer request is to be assigned so as to minimize an

average customer response time at any given moment, given said assignment of said

websites to said servers and a current customer request load (lines 12 of column 11

through line 26 of column 12, line 36-63 of column 14, and Fig. 5).

c.   As per claims 7 and 15, Carlson teaches: examining the next customer

request; invoking said Goal procedure in order to determine which server is the optimal

server to currently process said next customer request; and dispatching said next

customer request to said optimal server (lines 59-67 of column 4 lines 47-57 of column

12, Fig. 8, and Fig. 9).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

9.   Claims 5 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over

Carlson as applied to claim 1 above, in view of Lomet (U.S. 5,806,065).

Carlson fails to teach: the static procedure assigning specific websites to specific

servers for the purpose of processing unsharable customer requests. However, Lomet

discloses: "The data is distributed over the servers according to a distribution policy that

specifies which server site is to host a new data page. Example distribution policies

include opportunistic, randomized, and range. An 'opportunistic' distribution policy

chooses the same server site at which the node is split as the site to host the new page created by the node split," (lines 38-44 of column 15).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the static procedure assign specific websites to specific servers for the purpose of processing unsharable customer requests. "This policy reduces communications cost by keeping the split pages together at the same site. In a 'randomized' distribution policy, the server site chosen for any newly created page is based on a randomization process that uniformly distributes the load across all of the sites," (lines 44-48 of column 15 in Lomet). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the static procedure assign specific websites to specific servers for the purpose of processing unsharable customer requests in the system as taught by Carlson.

10.   Claims 6 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson in view of Lomet as applied to claim 5 above, further in view of Gilbert et al. (U.S. 6,771,595 B1) hereinafter referred to as Gilbert.

Carlson fails to teach: the static procedure assigns websites to specific servers based upon forecasted demand for customer requests from each said website. However, Gilbert discloses: "An expert system 33 is used by the resource controller 34 to allocate network resources according to predicted future traffic patterns," (lines 46-48 of column 3).

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to have the static procedure assign websites to specific servers

based upon forecasted demand for customer requests from each website. "Future

resource allocation is based on traffic patterns currently being monitored by the statistic

monitoring agent," (lines 48-50 of column 3 in Gilbert). It is for this reason that one of

ordinary skill in the art at the time of the applicant's invention would have been

motivated to have the static procedure assign websites to specific servers based upon

forecasted demand for customer requests from each website in the system as taught by

Carlson and Lomet.

11.   Claim 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson in

view of Lomet.

Carlson teaches: means for receiving customer requests from customer (abstract

and lines 40-43 of column 4); means for processing said customer requests to produce

responses (abstract and lines 29-52 of column 5); means for transmitting said

responses to said customers (abstract); means for categorizing said customer requests

into shareable customer requests and unshareable customer requests (line 65 of

column 14 through line 10 of column 15, lines 29-36 of column 15, and Fig. 14) [wherein

"sticky" requests are regarded as the unshareable customer requests]; a network

dispatcher comprising means for procedure, and a dynamic procedure (abstract, Fig. 1,

and Fig. 2A-2C); said Goal procedure comprising determining, for each said customer

request, an optimal server from among said servers to which each said customer

request is to be assigned so as to executing a goal procedure, a static minimize an

average customer response time at any given moment, given said assignment of said

websites to said servers and a current customer request load, wherein said shareable

customer requests may be assigned to any said server and wherein said unshareable

customer requests may only be assigned to specific servers depending on which said

website said unshareable customer request originated (lines 12 of column 11 through

line 26 of column 12, line 36-63 of column 14, and Fig. 5); and said dynamic procedure

comprising: examining the next customer request; involving said Goal procedure in

order to determine which server is the optimal server to currently process said next

customer request; and dispatching said next customer request to said optimal server

(lines 59-67 of column 4 lines 47-57 of column 12, Fig. 8, and Fig. 9).

Carlson fails to teach: said static procedure comprising assigning specific said

websites to specific said servers. However, Lomet discloses: "The data is distributed

over the servers according to a distribution policy that specifies which server site is to

host a new data page. Example distribution policies include opportunistic, randomized,

and range. An 'opportunistic' distribution policy chooses the same server site at which

the node is split as the site to host the new page created by the node split," (lines 38-44

of column 15).

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to have the static procedure assign specific websites to specific

servers. "This policy reduces communications cost by keeping the split pages together

at the same site. In a 'randomized' distribution policy, the server site chosen for any

newly created page is based on a randomization process that uniformly distributes the

load across all of the sites," (lines 44-48 of column 15 in Lomet). It is for this reason

that one of ordinary skill in the art at the time of the applicant's invention would have

been motivated to have the static procedure assign specific websites to specific servers

in the system as taught by Carlson.

Allowable Subject Matter

12.   The following is a statement of reasons for the indication of allowable subject

matter: The functions disclosed in claims 3, 8, 11, and 16 pertaining to the goal

procedure could not be found in the prior art.

Conclusion

13.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Choquier et al. (U.S. 5,951,694) discloses method of redirecting a client service

session to a second application server without interrupting the session by forwarding

service-specific information to the second server.

Wang (U.S. 6,112,279) discloses virtual web caching system.

Dias et al. (U.S. 6,119,143) discloses computer system for load balancing with

selective control and categorizing requests into groups.

Wallis et al. (U.S. 6,282,569 B1) discloses name server computer having a load

leveling facility to spread the load from client computers across a plurality of server

computers.

Yu (U.S. 6,351,775 B1) discloses load balancing across servers in a computer

network.

Wolf et al. (U.S. 6,374,297 B1) discloses method for load balancing of web

cluster farms.

Kauffman (U.S. 6,633,916 B2) discloses method for virtual resource handling in a

multi-processor computer system.

Mangipudi et al. (U.S. 6,728,748 B1) discloses method for policy based class of

service and adaptive service level management within the context of an internet and

intranet.

Lamberton et al. (U.S. 6,779,017 B1) discloses method for dispatching client

sessions within a cluster of servers connected to the world wide web.

Watkins et al. (U.S. 6,798,747 B1) discloses system for time slot assignment in a

fiber optic network simulation plan.

Monma et al. "Backbone Network Design and Performance Analysis: A

Methodology for Pack Switching Networks" discloses load balancing and switching

algorithms.

Jiang et al. "An adaptive network prefetch scheme" discloses prefetching with a

predictability model.

Theys et al. "A mathematical model and scheduling heuristics for satisfying prioritized data requests in an oversubscribed communication network" discloses shortest path load balancing and mathematical analysis.

Almeida et al. "Providing Differentiated Levels of Service in Web Content Hosting" discloses QOS mechanisms in web servers and scheduling.
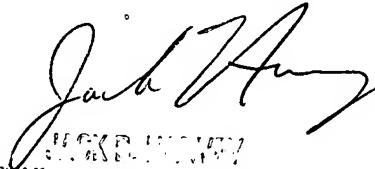
14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Meucci at (571) 272-3892. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey, can be reached at (571) 272-3896. The fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.meucci@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).